

REMARKS/ARGUMENTS

Reconsideration and allowance of this application are respectfully requested. Currently, claims 31-59 are pending in this application.

Objection to the Claims:

Claims 55 and 59 were objected to because of informalities. These claims have been amended to incorporate the Examiner's helpful suggestions. Applicant therefore requests that the objection to claims be withdrawn.

Allowable Subject Matter:

The Office Action held that claims 36, 40, 48 and 52 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. By this Amendment, claims 36, 40, 48 and 52 have been rewritten in independent form including all of the limitations of the base claim and any intervening claims – although Applicant requests that the Examiner make an independent determination of this issue.

Rejection under 35 U.S.C. §102:

Claims 31, 32, 37-39, 41, 43, 44, 49, 50, 51, 53 and 57 were rejected under 35 U.S.C. §102 as allegedly being anticipated by Cash et al. (U.S. '297, hereinafter "Cash"). Applicant traverses this rejection.

Anticipation under Section 102 of the Patent Act requires that a prior art reference disclose every claim element of the claimed invention. See, e.g., *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1574 (Fed. Cir. 1986). Cash fails to disclose every claim element of the claimed invention. For example, Cash fails to disclose "an image generator arranged to receive said local video images and information relating to said remote video images,

and generate combined video images for display on said local video display by combining said local and remote images such that both the face of the local participant and the face of the remote participant are: (i) displayed one on top of the other in substantial alignment; and (ii) simultaneously displayed in the region in which each one of the faces overlies the other face,” as required by new independent claim 31 and its dependents. Cash also fails to disclose “generating combined video images for display by combining the video image of the local participant with the video image of the remote participant such that both the face of the local participant and the face of the remote participant are: (i) displayed one on top of the other in substantial alignment; and (ii) simultaneously displayed in the region in which each one of the faces overlies the other face” as required by new independent claim 43 and its dependents.

Section 1 (pgs. 2-3) of the Office Action alleges, *inter alia*, “the claims do not require that all the overlapping portions of each video frame are displayed simultaneously.” Apparently, the Office Action expresses an interpretation in which the previously claimed recitation “such that the images of the participants appear to be overlaid one on top of the other in substantial alignment” means that only a small part of the images needs to be overlaid. To address and overcome this allegation, independent claims 31 and 43 have been amended so that it is now clear that the face of the one participant is overlaid the face of the other participant. Namely, part (d) of independent claim 31 requires “that both the face of the local participant and the face of the remote participant are: (i) displayed one on top of the other in substantial alignment; and (ii) simultaneously displayed in the region in which each one of the face overlies the other face” and part (d) of claim 43 requires “that both the face of the local participant and the face of the remote participant are: (i) displayed one on top of the other in substantial alignment; and (ii) simultaneously displayed in the region in which each one of the face overlies the other face.”

Support for these claim amendments can be found on pg. 1, lines 5-6; pg. 16, lines 11-14 and pg. 16, line 31 to pg. 17, line 1 of the original specification.

Cash discloses a video communications system incorporating a multi-window display where two or more windows, each showing an image of a participant of the video conference, can be displayed at the same time on an ordinary computer display (see, e.g., windows 27₁-27₃ and 37₁-37₃ in Fig. 1 of Cash).

The purpose of Cash is to enable this while only using a single decoder. (At the time of the Cash system, a decoder was needed for each video stream so in order to display three different images in three different windows three decoders were needed.) One way to achieve this is to overlay a part of a window with another window, for example window 27₁ over a part of window 27₂ in Fig. 1, and eliminating the macroblock(s) of the part of the image that is overlaid, or hidden, by the other window. The eliminated macroblock(s) does therefore not need to be decoded. Hence, if a window showing the face of a participant should be overlaid by another window showing the face of another participant such that the faces of the participants are one on top of the other in substantial alignment, the macroblocks of the face one of the participant would be eliminated. Only one of the participants (i.e., the local user himself or the remote user, depending on which image overlays the other) would thus be shown in the combined image.

As a specific example, col. 8, lines 36 *et seq.* of Cash states the following (emphasis added):

The macroblock T/E circuit 410 both eliminates macroblocks of video data that will not be displayed and translates the position of the macroblocks data to match the user's configuration. Macroblock elimination is required because in a windows environment, certain portions of video window may overlap portions of another window. As

a result, if a given macroblock is contained within the portion of a window that is hidden from view or occluded, the macroblock T/E circuit 410 eliminates that macroblock data.

Cash thus teaches that a part of an image that is overlaid by another window is discarded and not even decoded. Hence, the teachings of Cash would lead one skilled in the art away from the invention of independent claims 31 and 43 since Cash explicitly teaches eliminating all the macroblocks of the image of the participant that are overlaid by the image of the other participant. No combination of the images would be possible from the teachings of Cash, and only one of the participants (i.e., either the face of the local user himself or the face of the other participant) would be shown on the display.

One purpose of the invention of independent claims 31 and 43 is to enable the user participating in a video conference and having a device with a relatively small display to see both an image of himself and an image of the other participant on the display. This purpose is achieved by combining the image of the other local participant with the image of the remote participant such that the faces of the participants appear to be overlaid one on top of the other in substantial alignment. The purpose is clearly not achieved or even appreciated by Cash.

Accordingly, Applicant respectfully requests that the above noted rejection under 35 U.S.C. §102 over be withdrawn.

Rejections under 35 U.S.C. §103:

Claims 33, 34, 45 and 46 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cash in view of Oliyide (U.S. '518). Claims 35, 47, 55, 56, 58 and 59 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cash in view of Cohen-Solal (U.S. '029). Claims 42 and 54 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cash in view of Maurer (U.S. '231). None of these secondary references

(Oliyide, Cohen-Solal and Maurer) resolves the above-described deficiencies with respect to independent claims 31 and 43. For example, none of these secondary references resolves the deficiencies of Cash with respect to part (d) of independent claims 31 and 43 or similar deficiencies of Cash with respect to part (d) of independent claims 42 and 54. In particular, Oliyide merely describes enhancing a digital image such as medical diagnostic digital images.

As another example, Cohen-Solal describes a video display device having a picture-in-picture display and a processor. The processor detects cues, such as color, texture, events, and behaviours present in the primary display image that is overlaid by the PIP. These cues are used by the processor to determine important portions of the primary display and in response to such detection change the display characteristics, such as position, size and transparency, of the PIP in order to avoid that the PIP covers the important portions. However, an image of a person shown in the primary image is never combined with an image of a person (let alone a face image) showed in the PIP such that the persons appear to be overlaid one on top of each other in substantial alignment. On the contrary, the person shown in the primary display would be considered to be an important part of the display image and would therefore not be covered by the PIP.

As a final example, Maurer discloses sensing a person's facial expressions to generate and animate an avatar image based on facial sensing. However, the combination of Maurer and Cash fails to teach or suggest limitation (d) of independent claims 42 and 54.

Accordingly, Applicant respectfully requests that the above noted rejections under 35 U.S.C. §103 over be withdrawn.

CHATTING, et al.
Appl. No. 10/571,066
August 11, 2010

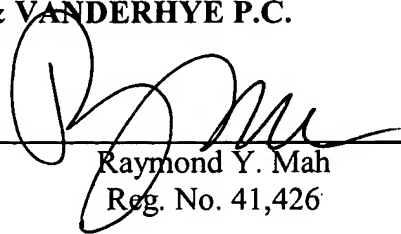
Conclusion:

Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____

A handwritten signature in black ink, appearing to be 'R. Mah', written over a horizontal line.

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